Testimony of Kenneth A. Colburn

Executive Director
of the
Northeast States for Coordinated Air Use Management
(NESCAUM)

Before the
United States Senate
Committee on Commerce, Science, and Transportation

Hearing on
Impacts of Climate Change and States' Actions

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Thank you, Mr. Chairman. My name is Ken Colburn. I am the Executive Director of the Northeast States for Coordinated Air Use Management (NESCAUM). NESCAUM is an association of the state air pollution control agencies of Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. We provide technical assistance and policy analysis to our member states on regional air pollution issues of concern to the Northeast. On behalf of the states, I would like to express our appreciation for this opportunity to address the Committee regarding the impacts of climate change and states' actions to address climate change. The timing is particularly opportune: regional, state, municipal, civic, and private sector progress on climate change is paving the way for future U.S. action, and may be rapidly approaching a tipping point.

This very week is illustrative: One Monday, the Northeast States met in New York with a British delegation headed by Margaret Beckett, Secretary of State for Environment, Food, and Rural Affairs concerning climate change activities and trading. Yesterday, the Connecticut General Assembly passed SB 595, establishing concrete emission reduction targets, requiring mandatory reporting of greenhouse gas emissions, and authorizing a voluntary greenhouse gas (GHG) registry. Also yesterday, Rhode Island Governor Donald Carcieri indicated that his state would adopt California's cleaner vehicle requirements. And today in Boston, Massachusetts Governor Mitt Romney is announcing his administration's comprehensive new Climate Protection Plan.

In the absence of concerted federal action to address climate change, many states have stepped up to fill this policy void, as much out of economic self-interest as fear of devastating climate impacts or a sense of obligation due to culpability or ability-to-pay. In the process, they have become a testing ground for some of the most progressive climate change efforts around the globe.

In particular, the Northeast, Mid-Atlantic, and Western coastal states, as well as a handful of others, have undertaken an abundance of climate initiatives: renewable electricity mandates, state and regional GHG registries, mandatory GHG reporting, statewide caps on GHG emissions, GHG reductions from motor vehicles, and now, a power sector cap-and-trade program. The states are not just a laboratory to experiment with U.S. climate change policy; their own GHG emissions are significant. Taken collectively, the eight Northeast states and California would rank among the six largest GHG emitters in the world. Even without California, the eight Northeast states would rank among the top ten, in a league with Canada, Australia, and France. Historically, our states have led by example, and this environmental leadership has served as a catalyst for federal action, once the disaster scenarios predicted by opponents do not, in fact, come to pass.

In this testimony, I will: (1) briefly describe the context and rationale which has spurred state and regional action on climate change; (2) highlight a sample of the countless state climate initiatives underway; and (3) outline a number of regional climate actions, such as the development of a regional greenhouse gas cap-and-trade program and regional greenhouse gas registry.

Context and Rationale for Regional and State Action on Climate Change

Perhaps counter-intuitive at first glance, it is actually not surprising that the states are shouldering the daunting task of addressing climate change. The states increasingly recognize that economic well-being and environmental quality are positively correlated; both are cornerstones to quality of life. The states are also acting within a strong

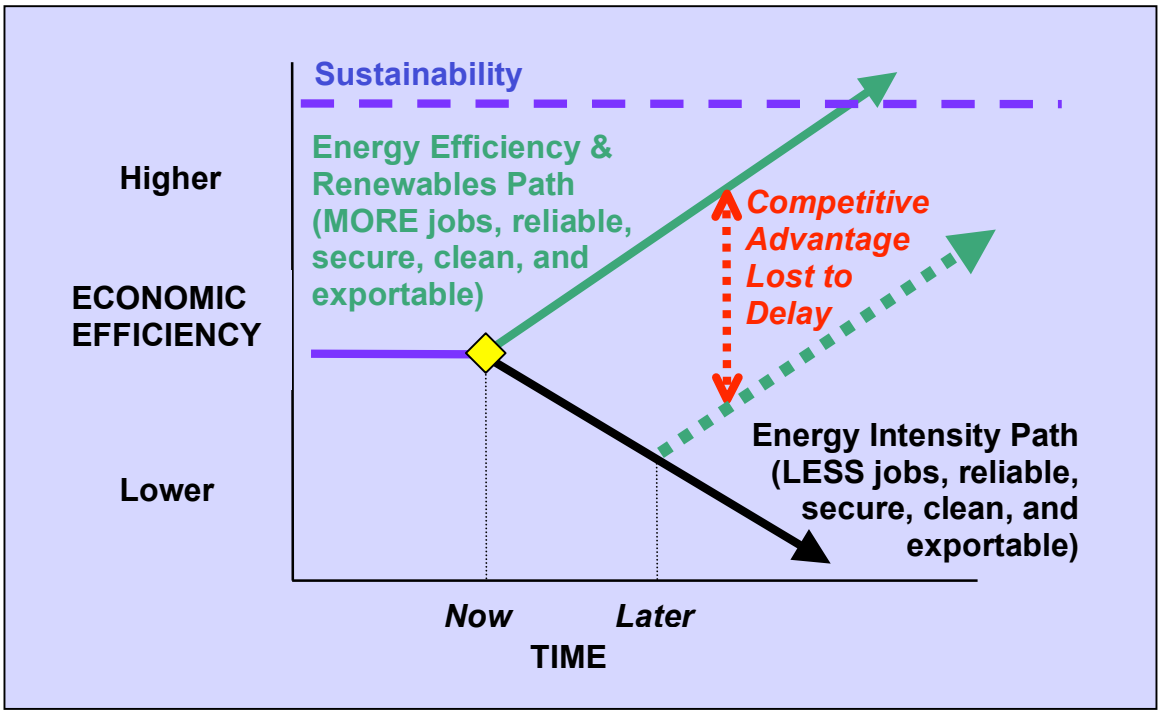
scientific consensus confirming that increasing concentrations of atmospheric greenhouse gases are largely the result of human activity. If we continue down the path we're on, scientists estimate that the climate of Boston could "relocate" to somewhere between that of Richmond and Atlanta over the next hundred years – drastically altering the economies, ecosystems, and quality of life our citizens enjoy today.

States and regions are already experiencing the impacts of global warming and have little choice but to act. Climate change has already begun to take its toll on a number of industries – tourism and recreation (e.g., skiing and snowmobiling), agriculture (e.g., maple sugaring), pulp and paper, lumber and wood products, and hunting and fishing. These effects directly impact state budgets, reducing revenues and increasing expenditures.

The states have the foresight to see that jobs-producing GHG mitigation measures – like developing and installing energy efficiency and renewable technologies of the future – are in their own best interests. Such steps enhance energy security and reliability, keep our energy dollars closer to home, boost our technology sector, provide greater business certainty, assuage financial and investment community concerns, provide significant public health co-benefits, and secure competitive advantage for the future. (See Figure 1.) Not surprisingly, then, such efforts are strongly bi-partisan and enjoy solid constituent support.

In short, the states are responding to climate change by positioning themselves <u>defensively</u> to protect their existing economies and reduce their vulnerability to climate risks; <u>offensively</u> to get ahead on the learning curve and secure the economic advantages accruing to early actors; and <u>aggressively</u> to protect public health, ecosystems, and overall quality of life.

Figure 1. Old or New Energy Path?



State Climate Actions

The states' responses have resulted in diverse strategies and a range of policy opportunities to move forward in addressing climate change. The climate action measures taken by individual states are virtually innumerable, so I will only be able to highlight a handful of them.

- Renewable Energy Requirements

Many states are implementing steps to encourage the penetration of renewable energy (RE) such as solar, wind, and biomass in the marketplace. Several states have committed to purchasing significant amounts of renewable power themselves. New York Governor George Pataki's Executive Order 111, for example, insists that 20% of all power purchased by the state come from renewable sources. Connecticut Governor John Rowland's Executive Order 32, announced last month, seeks 20% RE in state purchases

by 2010 and 100% by 2050. Others have adopted renewable portfolio standards (RPS) – market mechanisms that ensure a percentage of electricity sold is generated by RE sources. Over half of the Northeast states have implemented renewable energy portfolio standards, ranging from 4% to 30%. Nationwide, at least thirteen states (Arizona, California, Connecticut, Iowa, Maine, Massachusetts, Minnesota, Nevada, New Jersey, New Mexico, Pennsylvania, Texas, and Wisconsin) have established RPSs and more states (e.g., New York) are joining them.

- Reducing Motor Vehicle GHG Emissions

In 2002, the California State Assembly adopted legislation (AB 1493) requiring maximum feasible reductions in GHG emissions from light duty cars and trucks starting in 2009. Initial assessments have shown that new vehicle technologies – even less expensive than the hybrids already enjoying success in the marketplace – can reduce vehicle GHGs by at least 25% and save owners money over the life of the vehicle. Many other states already have or intend to adopt these California requirements. Massachusetts, New York, Vermont, and Maine have done so, joined this year by New Jersey and Connecticut following successful legislation. Rhode Island Governor Donald Carcieri announced yesterday that his state would follow suit.

States are also reducing emissions from their own fleets through vehicle procurement and use policies. Maine has an executive order insisting that state employees work to reduce Vehicle Miles Traveled (VMT) through videoconferencing, telecommuting, and carpooling, and requiring the purchase of hybrid electric vehicles where cars are necessary. Massachusetts requires state vehicles to be ULEV or better and to get at least 20 miles per gallon. It, along with Rhode Island, also limits the purchase and use of SUVs in state fleets. Last year in New York, 89% of vehicles purchased were hybrid or alternate fueled, en route to 100% by 2010. In addition, the NY Metropolitan Transit Authority is installing particulate traps three years ahead of schedule and purchasing 300 hybrid buses.

- Reducing Power Sector GHG Emissions

A handful of states have moved forward with "four-pollutant" emission reduction requirements on power plants, covering sulfur dioxide, nitrogen oxides, mercury and carbon dioxide. Massachusetts adopted the first such regulations limiting power plant emissions in 2001. New Hampshire followed suit in legislation the next year, the first time that elected officials had voted to regulate carbon dioxide emissions from power plants. In addition, Oregon passed pioneering legislation in 1997, requiring newly built power plants to offset roughly 17% of their carbon dioxide emissions. Facilities can propose offset projects that they or a third party manage or can provide funding to the independent Climate Trust, an organization which has been granted authority to obtain qualifying offsets for the facilities.[1] Massachusetts has similar requirements regarding new power plants constructed there.

In April of 2004, New Mexico Governor Bill Richardson and California Governor Arnold Schwarzenegger recommended to the Western Governors' Association that it set a goal of developing at least 30,000 megawatts of clean energy in the West by 2015 and increase energy efficiency by 20% by 2020. The Governors have proposed to create a clean energy working group to develop a set of policy proposals for official presentation to the Western Governors within the next two years.[2]

- Climate Action Plans

Many states have developed energy and climate action plans, which lay out strategies to curb greenhouse gas emissions and list action items to achieve targets. New Jersey set one of the first reduction targets at a 3.5% reduction from 1990 levels by 2005. New York's Energy Plan includes an economy-wide GHG reduction of 10% below 1990 levels by 2010. Governor Rowland of Connecticut accepted in March a plan with 38 recommendations, such as requiring energy efficiency measures in new state buildings.

[1] http://www.energy.state.or.us/siting/co2std.htm
[2] http://www.westgov.org/wga/initiatives/energy/summit/clean-energy.pdf

Rhode Island recently completed, and is now implementing a state-of-the-art climate change plan, and Maine is soon to finalize one. The Northeast is not unique in this respect. According to the Environmental Protection Agency, as of September 2003, 27 states were working on climate action plans, and the large majority of those states have already released their plans publicly at this point in time.[3] Not surprisingly, a broad diversity of GHG mitigation strategies are employed in these plans, such as tax incentives for fuel switching, recycling programs, methane reclamation programs, energy efficiency audits, and more.

- State Climate Registries

A number of individual states have developed their own greenhouse gas registries. Several have done so at least in part due to the perceived shortcomings of the federal program for voluntary reporting of greenhouse gases under Section 1605(b) of the Energy Policy Act of 1992 and to encourage credible voluntary emission reductions from the private sector by providing them – to the extent possible – with "baseline protection."

New Hampshire was the first state to create a greenhouse gas registry in 1999. Building on this lead, Wisconsin's Voluntary Emissions Reduction Registry was adopted in 2000 and allows for the registration of mercury, fine particulate matter, and other contaminants in addition to greenhouse gases. The most advanced state registry, California's Climate Action Registry, is widely considered the most credible and respected registry in the world. Over the past year, the California Registry and its partners have dedicated substantial resources to developing industry "best practices" and quantification and reporting protocols – as well as an online reporting tool (the California Action Registry Reporting Online Tool, or CARROT) – for use by participants, the media, and the public.

[3] http://yosemite.epa.gov/oar/globalwarming.nsf/content/ActionsStateActionPlans.html#actionplans

- Other State Climate Actions

The list doesn't stop there. In June of 2003, Maine's legislature ordered economy-wide GHG reductions, and joined New Jersey in requiring mandatory reporting of GHG emissions. Connecticut's legislature passed SB 595 this week which includes both these initiatives. Through the use of "system benefits charge" funds, approximately half a billion dollars annually are being dedicated to clean energy and energy efficiency initiatives in the Northeast. New York State alone invests $300 million annually.

In a recent enforcement settlement with a utility, New Jersey included carbon dioxide reduction requirements. New York has introduced a "green building" tax credit. Several states have adopted new energy efficiency standards for appliances. Connecticut expects its bill, passed this session, to save consumers $380 million in energy costs by 2020.

Governor Arnold Schwarzenegger last month initiated California's "Hydrogen Highway Network" to accelerate progress toward (and his state's lead in) the hydrogen economy. California is also studying how it can reduce its dependence on petroleum fuels by 15% from 2003 levels by 2020. New York Governor Pataki suggested on April 23, 2004 that we work on the scale of the Manhattan Project or man's lunar landing to wean the U.S. from imported oil.

- Litigation

Lastly, states are also acting through their state attorneys general. States concerned about climate change will turn to the courts, when necessary, regarding the federal government's interpretation of its ability to regulate climate-altering gases. In one lawsuit, filed in October 2003, twelve states (California, Connecticut, Illinois, Maine, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, and Washington) and several cities challenged EPA's assertion that it does not have the authority to regulate greenhouse gases under the Clean Air Act.

Regional Climate Actions

While bottom-up, state-by-state climate action can lead to significant reductions in greenhouse gases and also to diverse policy initiatives, there are limitations to a decentralized approach to addressing climate change. The regulated community can be stymied by a patchwork of state policies, and insufficient state resources can retard progress. As a result, states have begun to come together to act regionally on climate change. Uniform policies under a regional approach have often proven to be more cost effective and efficient in meeting reduction targets.[4]

I would like to outline a few of the regional activities taking place in the United States today to curb greenhouse gas emissions. These efforts have brought about an unprecedented level of cooperation and are testament to the idea that bottom-up state action can lead to a more centralized form of climate change governance. Just as state action has paved the way for regional action, a flurry of regional activities might very well compel national action.

- The NEG/ECP Climate Action Plan

Based on prior successes implementing regional agreements to address acid rain and mercury contamination, the New England Governors and Eastern Canadian Premiers (NEG/ECP) adopted a joint *Climate Change Action Plan* in August 2001. This Plan established a short-term goal to reduce GHG economy-wide emissions to 1990 levels by 2010, a mid-term goal to reduce to 10% below 1990 levels by 2020, and a long-term future target 75-85% below current levels. The Plan's nine action items include:

1. Establishing a standardized regional GHG emissions inventory;
2. Establishing a plan for reducing GHG emissions and conserving energy;
3. Promoting public awareness;

[4] Rabe, Barry G. "Greenhouse & Statehouse: The Evolving State Government Role in Climate Change." Washington D.C.: Pew Center on Global Climate Change, 2002.

4. Leading by example by reducing public sector GHG emissions by 25% by 2012;
5. Reducing electricity sector GHG emissions by reducing carbon dioxide emissions per megawatt-hour by 20% by 2025;
6. Reducing total energy demand by 20% by 2025 through conservation and increased energy savings;
7. Mitigating and adapting to negative social, economic, and environmental impacts of climate change;
8. Reducing growth in transportation sector GHG emissions; and
9. Establishing a regional GHG emissions registry and exploring future GHG trading.

A climate change steering committee has been created to develop and evaluate mitigation programs. Initiatives developed so far include regional green procurement, clean vehicle programs, college and university partnerships, inventory and registry development, jurisdictional "lead by example" programs, and a major symposium on adaptation to our changing climate. These programs have been far reaching in helping governors and premiers meet climate targets. For example, the adaptation symposium, held in March 2004, was an unprecedented event, assembling policy-makers, scientists, and environmentalists for the first time to discuss and share strategies to address climate impacts on natural resources and civic infrastructure in the Northeast.

- Regional Greenhouse Gas Registry (RGGR)

As noted above, the NEG/ECP Climate Action Plan's ninth action item called for the establishment of a regional greenhouse gas registry. Such a registry provides a system for organizing, reporting, and recording of information on GHG emissions in order to facilitate current and future climate programs.

A regional greenhouse gas registry for the Northeast is now under development at the Northeast States for Coordinated Air Use Management (NESCAUM). Beyond the NESCAUM states, regional registry participants also include Delaware and Pennsylvania, with several other states outside of the Northeast observing the process.

This effort expects to quantify and report GHG emissions in a manner that is consistent with the *GHG Protocol* established by the World Resources Institute and the World Business Council for Sustainable Development, and it will be compatible with the World Economic Forum's climate register and the respected California Climate Action Registry. Expected to be completed in mid-2005, the registry development process is open to states outside of the region that are considering – but have not yet made – GHG reduction commitments. When finished, it will serve a sizeable region and encompass a number of functions, including potential baseline protection for proactive companies, improving the quality of GHG inventories, supporting mandatory reporting of GHG emissions, and serving as the emissions tracking system for a future regional GHG cap-and-trade program.

- Regional Greenhouse Gas Initiative (RGGI)

In 2001, the latter function of the regional registry, supporting a future cap-and-trade program, was but a placeholder for eventual consideration. However, state interest in climate action has advanced so rapidly that in April 2003, New York Governor George Pataki publicly invited the Governors of ten Northeast and Mid-Atlantic states to join together to develop a regional cap-and-trade program for the power sector. Dubbed the Regional Greenhouse Gas Initiative (RGGI), this multi-state effort elevates climate mitigation strategies from *voluntary* initiatives to a *regulatory* program. As such, it arguably represents the most significant effort to address climate change now underway in the United States.

To date, nine states (Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont) have signed on as full participants in RGGI. In addition, several other jurisdictions are participating as observers (Maryland, Pennsylvania, the District of Columbia, the Eastern Canadian Provinces, and New Brunswick). The Australian states of Victoria and New South Wales, also leaders in state-level climate action, are also staying abreast of RGGI and how a similar or

complementary effort might be initiated "down under." While RGGI is initially focusing on CO_2 emissions from power plants, in later phases it may be expanded to other sources of emissions, as well as other greenhouse gases and offset opportunities.[5]

In July 2003, the participating states designated state representatives – from both state environmental agencies and energy offices – to the "RGGI Staff Working Group (SWG)." The SWG developed an action plan, which was endorsed by environmental commissioners and energy regulatory agency executives in September 2003. In its early meetings, the Staff Working Group determined RGGI's program goals, principles guiding its design, organization, and short-term tasks. The ambitious RGGI work plan has set April 2005 as its target date for completing model cap-and-trade regulations.

- West Coast Governors Challenge

The Governors of the three West Coast states have similarly begun to develop regional climate mitigation strategies. Individually, these states have crafted progressive state climate policies. However, the Governors agreed that a uniform approach would be more efficient and could spur further progress. Thus, in September of 2003, the Governors of California, Oregon and Washington launched a collective strategy to address climate impacts, a series of joint policy measures to curb greenhouse gas emissions. The list of recommendations includes: group procurement of fuel-efficient vehicles; reducing the use of diesel fuel in ships; removing market barriers and creating incentives for renewables; upgrading efficiency standards; and improving emissions measurement and inventory practices. The Governors have extended the invitation to Canadian provinces, Mexican states, and other states throughout the nation to join in this collaborative.

Conclusion

This testimony reflects only a humble sampling of the climate efforts underway at the state and regional scale. Climate change mitigation efforts in the Northeast and

[5] http://www.rggi.org

elsewhere extend well beyond state and regional activities. Counties, municipalities, and civic institutions have joined in, as the success of the Cities for Climate Protection program of the International Council of Local Environmental Initiatives (ICLEI) shows. Universities, hospitals and institutions are providing leadership in protecting the global climate. And businesses are acting without mandate, voluntarily curbing their GHG emissions. Many are saving money as a result. Insurers and the financial markets are starting to critically assess the climate risks and opportunities individual companies may face – and how they are responding. Shareholders are even making climate change a top priority, gaining unusually large votes on shareholder resolutions at corporate annual meetings.

This said, bottom-up, decentralized action – while heartening – cannot be a substitute for collective national action. The United States' greenhouse gas emissions are rising rapidly and only concerted action on the federal level will place us on a path towards significantly curbing and eventually reversing this GHG emission trend. The diverse nature of state policies heightens uncertainty for the regulated community, and reduction targets can be reached in a more efficient and cost-effective manner if tackled on a national level.

However, there are many lessons to be learned from the states, which, in the absence of federal action, have served as laboratories for climate policy development. We hope that federal policymakers will regard the states' innovative climate mitigation and adaptation strategies as models and quickly take action. Climate change has already begun to take its toll on our states' economies and natural resources. We need to act while the window to avert dangerous interference with natural climate systems – and to maximize economic opportunity – may be still open.